

Course Name: MARI & PI Course	
Course Coordinators: J Grigar & R. Shaffer	Course Number: MI000066

**Overview:** the **Manure Application Risk Index (MARI)** and the **MI Phosphorus Index (PI)** course will provide NRCS employees or 3<sup>rd</sup> Party Vendors the opportunity to complete a MARI & PI risk assessment in the field. Trainees will discuss the impact of selecting alternative conservation practices to reduce the potential of water pollution from winter spread manure and from manure spread during other times of the year with the PI. We will visit the Michigan Phosphorus Index and discuss the role of phosphorus in soil, water, and plant resource concerns and the use of PI and MARI with the Michigan Nutrient Management standard 590. .

**Purpose:** This is for newer or older employees who are expected to complete MARI or PI risk assessment and calculations at the field level and evaluate alternative cropping and erosion control systems so land managers can make informed decisions to protect water quality. Also, anyone reviewing CNMP plans for approval will need a working knowledge of these two risk assessment tools.

**Prerequisites:** Core 4, CCA certified, or 1 year of experience

**Duration:** 1 day during the period of March-June

**Target Audience:** NRCS employees and partners engaged in nutrient management plans that include animal manure, CNMP crop nutrient budgets and schedules for spreading manure.

**Expected Outcomes:** Students will be able to compute a MARI and PI assessment, plan alternative conservation practices that can reduce the impact of runoff and phosphorus from manure that meets the 590 standard & specifications.

**Resources needed:** Old clothes and fields boots, laptops for MARI and PI Excel Spreadsheet access.

**Outline for:** MARI & PI course

The Phosphorus Index - A Phosphorus Assessment Tool

Agricultural Phosphorus and Eutrophication

MARI - A procedure For Determining The Land Available for Winter Spreading of Manure in Winter

Evaluation and calculation with MARI in the field and discussing practice alternatives to reduce pollution potential.

MI Agronomy Tech Note 35, NRCS Manure Application Risk Index Spreadsheet 3.0 and the Procedure for Determining the Land Available for Winter Spreading of Manure

MI Phosphorus Index eFOTG Section IV Technical Tools.

